AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended): A 3D-input device for inputting information using a virtual keyboard, comprising:

a hand position and finger order determination unit that determines~~:~~ which button of a plurality of buttons of the virtual keyboard is stroked and which fingers are used to stroke the stroked button; ~~a selected button, of a plurality of buttons of the virtual keyboard, that is selected by a user; and an order of the user's fingers used to select the selected button;~~

a key information storage unit that stores key values respectively mapped to a predetermined button of the plurality of buttons of the virtual keyboard and fingers used to stroke the predetermined button; and~~both a predefined button of the plurality of buttons of the virtual keyboard and a predefined order of the user's fingers used to select the predefined button; and~~

a key determination unit that finds a ~~selected~~ key value by matching the stroked button and the fingers used to stroke the stroked button with the predefined button and fingers~~selected button and order of the user's fingers with the predefined button and predefined order of the user's fingers~~ mapped in the key information storage unit.

2. (Original): The device of claim 1, wherein the key determination unit outputs the selected key value.

3. (Original): The device of claim 1, further comprising:

a sensing device that senses a user's finger movements; and

a signal processing unit that processes a signal output from the sensing device to detect the movement of the user's fingers,

wherein the hand position and finger order determination unit utilizes information output by the signal processing unit to determine the selected button and the order of the user's fingers.

4. (Original): The device of claim 3, wherein the sensing device comprises a plurality of sensors arranged individually on a user's fingers.

5. (Original): The device of claim 4, wherein, in the key information storage unit, key values are allocated to each of the plurality of buttons of the virtual keyboard based upon the number of sensors.

6. (Original): The device of claim 1, wherein the virtual buttons are arranged so that the key values are ordered by frequency of use.

7. (Original): The device of claim 1, wherein the virtual buttons are arranged so that the key values are in alphabetical order.

8. (Original): The device of claim 1, wherein the virtual buttons include key values that are defined by the user.

9. (Original): The device of claim 1, wherein each virtual button comprises two key values.

10. (Original): The device of claim 1, wherein each virtual button comprises three key values.

11. (Original): The device of claim 1, wherein each virtual button comprises four key values.

12. (Original): The device of claim 1, wherein each virtual button comprises five key values.

13. (Original): The device of claim 1, wherein each virtual button comprises six key values.

14. (Currently Amended): A 3D-input method for inputting information using a virtual keyboard comprising:

sensing a stroke~~selection~~ of a virtual button of the virtual keyboard by a user;

sensing positions of the user's fingers relative to the virtual button, and which fingers are used to stroke the ~~order of the user's fingers that are used to select the~~ virtual button; and

identifying a stroked key value corresponding to the sensed virtual button, the sensed positions of the fingers and the fingers used to stroke the virtual button~~selected key value corresponding to the sensed positions of the fingers and the order of the user's fingers that are used to select the virtual button, amongst a plurality of stored key values~~.

15. (Original): The method of claim 14, further comprising outputting the selected key value.

16. (Original): The method of claim 14, wherein sensing the selection of a virtual button comprises arranging a plurality of sensors individually on the user's fingers and determining the position of those sensors relative to the virtual button.

17. (Previously Presented): The method of claim 14, wherein the plurality of stored key values are stored by:

mapping key values to respective predefined virtual buttons and a predefined order of the user's fingers used to select the predefined virtual buttons.

18. (Original): The method of claim 17, wherein the virtual buttons are arranged so that the key values are ordered by frequency of use.

19. (Original): The device of claim 14, wherein the virtual buttons are arranged so that the key values are in alphabetical order.

20. (Original): The device of claim 14, wherein the virtual buttons include key values that are defined by the user.

21. (Original): The device of claim 14, wherein each virtual button comprises two key values.

22. (Original): The device of claim 14, wherein each virtual button comprises three key values.

23. (Original): The device of claim 14, wherein each virtual button comprises four key values.

24. (Original): The device of claim 14, wherein each virtual button comprises five key values.

25. (Original): The device of claim 14, wherein each virtual button comprises six key values.

26. (Original): A soft key mapping method for mapping keys onto virtual buttons of a virtual keyboard that are selected by a user's fingers upon which are individually mounted a plurality of sensors, the method comprising:

    determining the number of sensors;

    allocating key values according to the number of sensors;

    mapping the allocated key values onto a first virtual button; and

    repeating the determining, allocating and mapping for the remaining virtual buttons.

27. (Original): A virtual keyboard comprising a plurality of virtual buttons selectable by a user's fingers upon which are mounted a plurality of sensors, the virtual keyboard constructed by mapping key values onto each of the virtual buttons and arranging the virtual buttons according to a predetermined condition using a method comprising:

    determining the number of sensors;

    allocating key values to the number of sensors;

    mapping the allocated key values onto a first virtual button; and

repeating the determining, allocating and mapping for the remaining virtual buttons.